App. No. 09/682, 066

In the Claims:

1-16 (cancelled)

17. (new) . A device for achieving network protocol independence comprising: a Physical Layer that is an interface to the transmission means and a Physical Transmission layer which handles the transmission of data on a communication means; An Application Layer; and A Smart Network Layer that comprises the following sub-levels, the Network Routing which handles network routing and load balance, the Packet Transport which handles packet transportation, and the Data Encryption which handles data security; said Smart Network Layer interfaces the Physical Layer with the Application Layer where if the physical network does not implement network services required by the Application layer, the Smart Network layer will implement said services.

18. (new) The device in claim 17 further comprising the Data Encryption sub-layer implementing one or more encryption algorithms.

19. (new) The device in claim 17 further comprising said Physical Layer being based in hardware.

20. (new) The device in claim 17 further comprising having the top sub-layer of the Smart Network layer be the Data Encryption (DE) sub-layer.

21. (new) The device in claim 17 further comprising having the fundamental packet transport services implemented by the Physical Transmission layer be connection-oriented and connectionless services.

22. (new) The device in claim 17 further comprising Physical Transmission layer handles damaged, lost and duplicate frames.

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